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1877.	G.M.T. h	m	
Oct. 16	9	43	Nearly "up" to conjunction.
	10	15	"Up."
	10	20	Certainly "up"; distance from plane of ring 48″·8.
17	7	30	*Japetus* about half-way between limb and following edge of ring.
	8	45	*Japetus* 41″·6 distance from plane of ring.
	9	35	Nearly "up"—observation stopped; conjunction would not take place later than $9^{h}\ 55^{m}$.
Nov. 25	7	5	*Japetus* 10″ past conjunction with centre of *Saturn*.

Eaton Rise, Ealing,
January 1878.

Note on the Transit of the Shadow of Titan over Saturn, on 1877, *December* 25. By Lord Lindsay.

Dr. R. Copeland observing with the 15-inch refractor (reduced to 10-inch), power about 200.

h	m		
5	36	G.M.T.	Certainly not up.
	42		,, ,,
	44		,, ,,
	46		Not up.
	48		Barely up.
	50		Up.
	53		Still apparently central.
	55		,, ,,
5	56·5		Scarcely past.
6	0·0		Very slightly past (very good definition).
6	2		Very slightly past.
6	5		Certainly past.
6	8		,, ,,
6	12		Far past.

The following pairs may be combined:—

h	m		h	m		h	m	
5	46	Not up.	5	48	Barely up.	5	50	Up.
6	5	Cert. past.	6	0	Very slightly past.	5	56·5	Scarcely past.
5	55·5		5	54		5	53·3	

Say central passage $5^{h}\ 54^{m}\cdot 3$ with limits not exceeding $5^{h}\ 48^{m}$ to $6^{h}\ 0^{m}$.

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On the whole the definition was very bad. The following measures were taken with great difficulty:—

	h	m	″
Shadow south of axis of ring at	5	45	3 34
		47	3·47
	5	52	4·50
	6	1	2·15
		7	3·43
		14	2 91
	6	17	2·78
Means	6	0 4	3·23

Mr. Lohse observing with the 6-inch Simms made the shadow

		h	m	
	Certainly not up at	5	43	G.M.T.
	Certainly past at	6	2½	
and	Central at	5	53,	

definition very unsatisfactory.

The Observatory, Dun Echt,
Aberdeen, 1877, *Dec.* 26.

On a Cyclonic Arrangement of the Solar Granules.

By W. Huggins, D.C.L., LL.D., F.R.S.

The splendid solar photographs which are taken by Dr. Janssen at Meudon, one of which he has kindly presented to this Society, shows, among other important features, a frequent tendency of the granules to arrange themselves in a spiral form, accompanied by more or less loss of distinctness of outline of the individual granules, an appearance which suggests great

Fig. 1.

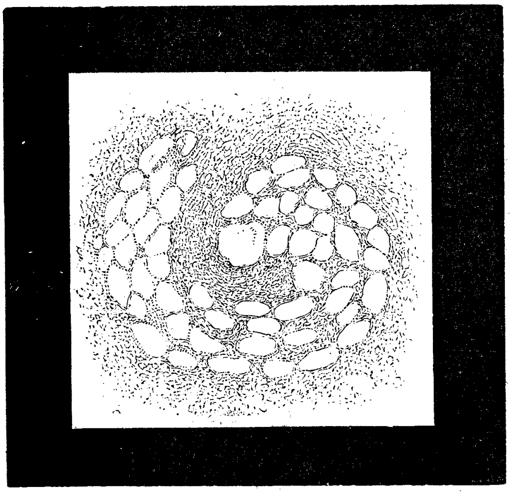
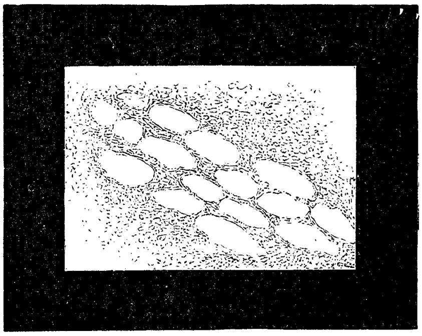


Fig. 2.



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